(11) EP 0:900 568 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication: 10.03.1999 Bulletin 1999/10 (51) Int Cl.⁶: **A61K 31/505** // (A61K31/505, 31:195, 31:15)

- (21) Application number: 98307181.2
- (22) Date of filing: 04.09.1998
- (84) Designated Contracting States: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE Designated Extension States: AL LT LV MK RO SI
- (30) Priority: 05.09.1997 US 58098 P
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- (54) AMPA antagonists for the treatment of dyskinesias associated with dopamine agonist therapy
- (57) The invention relates to a method of treating dyskinosias associated with dopamine agonist therapy in a mammal which comprises administering to said mammal a compound, as defined heroin, which is an

antagonist of the AMPA receptor. Dopamine agonist therapy, as referred to in the present invention, is generally used in the treatment of a central nervous system disorder such as Parkinson's disease.

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Description

Background Of The Invention

- 5 00027 Dyskinesias are involuntary physical movements which may include chorea, tempo, ballism, dyslonia, athetosis, mycolonis and lict. Dyskinesias often result from treatment of the physical symptoms of Parkinson's disease. Parkinson's disease are harderized by trempo, rigidity, bracykinesia and postural instability. Such motor abnormalities may be raduced by therapies which increase dopamine receptor stimulation. These therapies include drugs which directly simulate dopamine seceptors (such as bromociptine) or increase the levels of dopamine (such as L-dopa or drugs which inhibit dopamine maponism. In the present invention, such therapies which increase dopamine receptor stimulation are reterred to generally as deparmine agonist thorapy to treat Parkinson's disease, new motor abnormalities may emerge. The motor abnormalities associated with dopamine agonist thorapy include thereast dyskinesias and dystonism. The present invention relates to the treatment of dyskinesias associated with dopamine agonist thorapy in the treatment of a central nervous system (ONS) disorder, in particular Parkinson's disease, frough the administration of an AMPA coeptor antagonist as provided disorder, in particular Parkinson's disease, frough the administration of an AMPA coeptor antagonist as provided.
- below. [0003] The compounds that may be used in accord with the present invention are antagonists of the AMPA subtype of the clutamate receptor. Glutamate is the principal excitatory neurotransmitter in the central nervous system of mammals. Glutamate synaptic transmission is mediated by several families of receptors including the α-amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid (AMPA), N-methyl-D-aspartate (NMDA), kainic acid (KA), and metabotropic receptors. The AMPA receptor subtype mediates fast excitatory transmission throughout the brain, including areas involved in movement. By inhibiting the AMPA receptor through administration of an AMPA receptor antagonist, dyskinesias associated with dopamine agonist therapy may be treated in accord with the present invention as described below [0004] AMPA receptor antagonists are referred to in several published patents including the following issued United States patents (listed by patent number followed by issue date in parentheses): 5.654,303 (August 5, 1997): 5.639,751 (June 17, 1997); 5.614.532 (March 25, 1997); 5.614.508 (March 25, 1997); 5.606.062 (February 25, 1997); 5.580.877 (December 3, 1996); 5,559,125 (September 24, 1996); 5,559,106 (September 24, 1996); 5,532,236 (July 2, 1996); 5,527,810 (June 18, 1996); 5,521,174 (May 28, 1996); 5,519,019 (May 21, 1996); 5,514,680 (May 7, 1996); 5,631,373 (May 20, 1997); 5,622,952 (April 22, 1997); 5,620,979 (April 15, 1997); 5,510,338 (April 23, 1996); 5,504,085 (April 2, 1996); 5,475,008 (December 12, 1995); 5,446,051 (August 29, 1995); 5,426,106 (June 20, 1995); 5,420,155 (May 30, 1995); 5,407,935 (April 18, 1995); 5,399,696 (March 21, 1995); 5,395,827 (March 7, 1995); 5,376,748 (December 27, 1994); 5,364,876 (November 15, 1994); 5,356,902 (October 18, 1994); 5,342,946 (August 30, 1994); 5,268,378 (December 7, 1993); and 5,252,584 (October 12, 1993).

45 Summary Of The Invention

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[0005] This invention relates to the use of a compound selected from groups (A), (B), (C), (D), (E), or (F) or a pharmaceulcally acceptable sall thereof, in the manufacture of a medicament for treating dysknessas associated with dopamine agonist therapy in a mammal, such as a human, wherein groups (A), (B), (C), (D), (E), and (F) are defined as follows:

(A) (S)-3-(2-chloro-phenyl)-2-[2-(5-diethylaminomethyl-2-fluoro-phenyl)-vinyl]-6-fluoro-3H-quinazolin-4-one:

- (S)-3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
 - (\$)-3-(2-chloro-phenyl)-2-[2-(4-diethylaminomethyl-pyridin-2-yt)-vinyl]-6-fluoro-3H-quinazolin-4-one; (\$)-3-(2-chloro-phenyl)-2-[2-(6-ethylaminomethyl-pyridin-2-yt)-vinyl]-6-fluoro-3H-quinazolin-4-one;
 - (S)-3-(2-bromo-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
 - (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methoxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;

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(S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-(4-methyl-pyrimidine-2-yl)-vinyl)-3H-qulnazolin-4-one; (\$)-3-(2-chloro-phenyl)-6-fluoro-2-{2-[6-(isopropylamino-methyl)-pyridin-2-yl]-ethyl]-3H-quinazolin-4-one; (S)-6-fluoro-2-[2-(2-methyl-thiazol-4-yl)-vinyl]-3-(2-methyl-phenyl)-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-(2-methyl-thiazol-4-yl)-vinyl)-3H-quinazolin-4-one; (S)-2-[2-(2-dimethylaminomethyl-thjazol-4-yl)-vinyll-6-fluoro-3-(2-fluoro-phenyl)-3H-quinazolin-4-one; (S)-3-(2-bromo-phenyl)-6-fluoro-2-[2-(2-methyl-thiazol-4-yl)-vinyl]-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-2-[2-(2-methyl-thiazol-4-yl)-vinyl]-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one; (S)-3-(2-bromo-phenyl)-2-(2-pyridin-2-yl-yinyl)-3H-quinazolin-4-one: (S)-6-chloro-2-(2-pyridin-2-yl-yinyl)-3-o-tolyl-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-6-chloro-2-[2-(6-methyl-pyrldin-2-yl)-vlnyl]-3-o-tolyl-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-ethyl)-3H-quinazolin-4-one; (S)-6[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dlhydro-quinazolin-2-yl]-vinyl}-pvridine-2-carbaldehyde: (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methylaminomethyl-pyridin-2-yl)-vlnyl]-3H-quinazolin-4-one; (S)-N-(6-{2-{3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolln-2-y|]-vinyl}-pyridin-2-ylmethyl)-N-methyl-acetamide; (S)-6-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridine-2-carbonitrile; (S)-3-(2-fluoro-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one; (S)-3-(2-bromo-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one; (S)-3-(4-bromo-2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazotin-4-one; (S)-3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl)-3H-quinazolin-4-one; (S)-N-(6-(2-(3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yll-vinyl}-pyridin-2-ylmethyl)-Nethyl-acetamide; (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-(6-fluoromethyl-pyridin-2-yl)-yinyl]-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-pyrrolidin-1-ylmethyl-pyridin-2-yl)-ethyl]-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-2-[2-(6([ethyl-(2-hydroxy-ethyl)-aminol-methyl)-pyrldin-2-yl)-yinyl[-6-fluoro-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-6-(juoro-2-[2-[6-(isopropylamino-methyl)-pyridin-2-yl]-yinyl]-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-(6-(2-methyl-piperidin-1-ylmethyl)-pyridin-2-yl]-vinyl)-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-2-[2-(6-ethoxymethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-2-[2-[6-(2,5-dihydro-pyrrol-1-ylmethyl)-pyridin-2-yl]-vinyl]-6-fluoro-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-(6-(4-methyl-piperidin-1-ylmethyl)-pyridin-2-yll-vinyl)-3H-quinazolin-4-one: (S)-6-bromo-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3-o-tolyl-3H-quinazolin-4-one; (S)-6-bromo-2-(2-pyridin-2-yl-vinyl)-3-o-tolyl-3H-quinazolin-4-one; (S)-6-fluoro-3-(2-fluoro-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-6-methyl-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one; (\$)-3-(2-chloro-phenyl)-2-[2-(6-dimethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazotin-4-one; (S)-6-fluoro-3-(2-fluoro-phenyi)-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-2-[2-(6-[[(2-dlmethylamino-ethyl)-methyl-amino]-methyl}-pyridin-2-yl}-vinyl]-6-fluoro-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-hydroxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-acetic acid 6-{2-{3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridin-2-yl methyl ester: (S)-6-(2-(3-(2-bromo-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl)-pyridine-2-carbaldehyde; (\$)-3-(2-bromo-phenyt)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-acetic acid 6-{2-{3-(2-bromo-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quin-azolin-2-yll-vinyl}-pyridin-2-ylmethyl ester. (S)-diethylamino-acetic acid 6-(2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dlhydro-quinazolin-2-vl]-vinyl}-pyridin-2-ylmethyl ester, (S)-3-(2-chloro-phenyl)-2-[2-(6-difluoromethyl-pyridin-2-yl)-vinyl]-6-(luoro-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methoxy-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-2-(2-f3-(2-chloro-phenyl)-6-fluoro-4-oxo-3.4-dihydro-quinazolin-2-yll-yinyl)-6-methyl-nicotinonitrile: (S)-2-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-ethyl]-6-methyl-nicotinonitrile;

(S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-pyrlmidine-2-yl-ethyl)-3H-quinazolin-4-one;

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(S)-3-(2-chloro-phenyl)-2-[2-(4,6-dimethyl-pyrimidine-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one; (S)-2-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vlnyl]-nicotinonitrile; (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-(6-[(3-methyl-butylamino)-methyl)-pyridin-2-yl)-ethyl)-3H-quinazolin-4-one: (S)-2-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-ethyl)-nicotinonitrile; (S)-2-[2-(6-chloro-4-oxo-3-o-tolyl-3,4-dihydro-quinazolin-2-yl)-vinyl]-benzonitrile; (S)-2-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl}-vinyl]-4-methyl-benzonitrile; (S)-3-(2-bromo-phenyl)-6-fluoro-2-[2-(6-hydroxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; and (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-pyrrolidin-1-ylmethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; (B) (S)-6-fluoro-2-[2-(2-fluoro-phenyl)-vinyl]-3-(2-methyl-pyridin-3-yl)-3H-quinazolin-4-one; (S)-2-(2-(6-fluoro-3-(2-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl)-yinyl}-benzon(trile; (S)-2-[2-[6-fluoro-3-(2-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl]-vinyl]-benzonitrile; (S)-2-[2-[3-(2-chloro-pyridin-3-yl)-6-fluoro-4-oxo-3,4-dihydroquinazolin-2-yl]-vinyl]-benzonitrile; (S)-2-[2-[6-fluoro-3-(2-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl]-4-methyl-benzonitrile; (S)-2-[2-[3-(2-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-benzonitrile; (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(Ihlazol-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(2-methyl-thiazol-4-yl)-vinyl]-3H-quinazolin-4-one; (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(4-methyl-thiazol-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-2-[2-(5-diethylaminomethyl-2-fluoro-phenyl)-vinyl]-6-fluoro-3-(2-methyl-pyridin-3-yl)-3H-quinazolin-4-one: (S)-6-fluoro-2-f2-f2-ffluoro-5-pyrrolidin-1-ylmethyl-phenyl)-yinyll-3-f2-methyl-pyridin-3-yll-3H-quinazolin-4-one: (S)-3-(2-chloro-pyridin-3-yl)-2-[2-(2-fluoro-phenyl)-vinyl]-3H-quinazolin-4-one; (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-(6-methyl-phenyl-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-(fluoro-phenyl)-vinyl]-3H-quinazolin-4-one; (S)-6-chloro-2-[2-(2-fluoro-phenyl)-vinyl]-9-(2-methyl-pyrldin-3-yl)-9H-quinazolin-4-one; (S)-6-chloro-2-[2-(2-fluoro-phenyl)-vinyl]-3-(3-methyl-1-oxy-pyridin-4-yl)-3H-quinazolin-4-one; (S)-3-{2-(3-(2-chloro-pyridin-3-yl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl)-benzaldehyde; (S)-3-{2-{3-{2-chloro-pyridin-3-yl}-4-oxo-3,4-dlhydro-quinazolin-2-yl}-vinyl}-benzaldehyde; (S)-3-(2-chloro-pyrldin-3-yl)-6-fluoro-2-[2-(3-hydroxymethyl-phenyl)-vinyl]-3H-quinazolin-4-one; (S)-3-(2-ch|oro-pyridin-3-yl)-2-{2-{3(1,4-dioxa-8-aza-spiro{4.5}dec-8-ylmethyl)-phenyl}-vinyl}-6-fluoro-3Hquinazolin-4-one; (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-{2-{3-(4-pyrrolidin-1-yl-piperidin-1-ylmethyl)-phenyl]-vinyl)-3H-quinazolin-4-one; (S)-2-{2-{3-(2-chloro-pyridin-3-yl-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl}-vinyl}-benzonitrile; (S)-2-{2-[3-(2-chloro-pyridin-3-vl)-4-oxo-3,4-dihydro-quinazolin-2-vl]-vinvl}-benzonitrile: (S)-2-[2-(2-fluoro-phenyl)-vinyl]-3-(2-methyl-pyridin-3-yl)-3H-quinazolin-4-one: (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-hydroxy-phenyl)-vinyl]-3H-quinazolin-4-one; (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(2-methyl-thiazol-4-yl)-ethyl]-3H-quinazolin-4-one; (S)-6-fluoro-3-(2-chloro-pyridin-3-yl)-2-[2-(2-dimethylamino-methylthiazol-4-yl)-vinyl]-3H-quinazolin-4-one; (S)-2-[2-(5-Diethylaminomethyl-2-fluoro-phenyl)-vinyl]-6-fluoro-3-(4-methyl-pyridin-3-yl)-3H-quinazolin-4-one: (S)-4-Diethylaminomethyl-2-{2-{6-fluoro-3-(4-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-yinyl]benzonitrile: (S)-2-[2-(5-Diethylaminomethyl-2-fluoro-phenyl)-vinyl]-6-fluoro-3-(3-methyl-pyrazin-2-yl)-3H-quinazolin-4-one: (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(2-dimethylamino-methylthiazol-4-yl)-yinyl]-3H-quinazolin-4-one: (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(2-methyl-oxazol-4-yl)-yinyl]-3H-quinazolin-4-one: (S)-6-fluoro-3-(2-chloro-pyridin-3-yl)-2-[2-(thiazol-2-yl)-yinyl]-3H-quinazolin-4-one: (S)-6-fluoro-3-(4-methyl-pyridin-3-yl)-2-[2-(4-methyl-thiazol-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-(2-hydroxy-phenyl)-yinyll-3H-quinazolin-4-one; and, (S)-6-fluoro-2-[2-(2-fluoro-5-pyrrolidin-1-ylmethyl-phenyl)-ethyl]-3-(2-methyl-pyridin-3-yl)-3H-quinazolin-4-one;

(C) 3-(2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;

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3-(2-bromo-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazotin-4-one:
6-chloro-2-(2-pyridin-2-yl-vinyl)-3-o-tolyl-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
6-chloro-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3-o-tolyl-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-ethyl)-3H-quinazolin-4-one;
6-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridine-2-carbaldehyde;
3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methylaminomethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
N-(6-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl]-pyridin-2-ylmethyl)-N-methyl-
acetamide:
3-(2-chloro-phenyl)-2-[2-(4-diethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
6-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridine-2-carbonitrile;
3-(2-fluoro-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
3-(2-bromo-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
9-(4-bromo-2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
N-(6-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridin-2-ylmethyl)-N-ethyl-
acetamide:
3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-fluoromethyl-pyridin-2-yl)-vinyl]-9H-quinazolin-4-one;
3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-pyrrolidin-1-ylmethyl-pyridin-2-yl)-ethyl]-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-2-[2-(6-{[ethyl-(2-hydroxy-ethyl)-amino]-methyl}-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazo-
3-(2-chloro-phenyl)-6-fluoro-2-[2-[6-(isopropylamino-methyl)-pyridin-2-yl]-vinyl)-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-6-fluoro-2-(2-[6-(2-methyl-piperidin-1-ylmethyl)-pyridin-2-yl]-vinyl}-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-2-[2-(6-ethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-2-[2-(6-ethoxymethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-2-{2-[6-(2,5-dihydrn-pyrrol-1-ylmethyl)-pyridin-2-yl]-vinyl]-6-fluoro-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-6-fluoro-2-(2-f6-(4-methyl-piperidin-1-ylmethyl)-pyridin-2-yl]-yinyl}-3H-quinazolin-4-one:
6-bromo-2-[2-(6-melhyl-pyridin-2-yl)-vinyl]-3-o-tolyl-3H-quinazolin-4-one;
6-bromo-2-(2-pyridin-2-vl-vinyl)-3-o-tolyl-3H-quinazolin-4-one;
6-fluoro-3-(2-fluoro-phenyl)-2-(2-pyridin-2-yl-yinyl)-3H-quinazolin-4-one;
1-benzyl-5-(2-methyl-I1.3)dloxolan-2-yl)-2-oxo-2, 3-dihydro-1H-indole-3-carboxylic acid (3-phenylcarbamoyl-
phenyl)-amide;
3-(2-chloro-phenyl)-6-methyl-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-2-[2-(6-dimethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
6-fluoro-3-(2-fluoro-phenyl)-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
3-(2-chloro-phenyl)-2-[2-(6-{[(2-dimethylamino-ethyl)-methyl-amino]-methyl]-pyridin-2-yl)-vinyl]-6-fluoro-3H-
quinazolin-4-one;
3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-hydroxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
acetic acid 6-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl]-pyridin-2-ylmethyl es-
ter;
6-{2-{3-(2-bromo-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridine-2-carbaldehyde;
3-(2-bromo-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vlnyl]-6-fluoro-3H-quinazolin-4-one;
3-(2-bromo-phenyl)-2-[2-(6-diethylaminomethyl-pyrldin-2-yl)-ylnyl]-3H-quinazolin-4-one;
acetic acid 6-{2-(3-(2-bromo-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-ylnyl}-pyridin-2-ylmethyl es-
3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methoxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
diethylamino-acetic acid 6-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridin-
2-ylmethyl ester;
6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(z-methyl-thiazol-4-yl)-vinyl]-3H-quinazolin-4-one;
3-(2-bromo-phenyl)-6-fluoro-2-[2-(6-hydroxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; and,
3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-pyrrolidin-1-ylmethyl-pyridin-2-yl)-vinyl]-9H-quinazolin-4-one;
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(D) 3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl)-pyridin-2-yl)-2-hydroxy-vinyl)-6-fluoro-3H-quinazolin-4-one

6-Chloro-3-(2-chloro-phenyl)-2-[2-hydroxy-2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; 2-{2-{3-{2-Chloro-phenyl}-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl}-nicotinonitrile; 2-(2-(3-(2-Chloro-pyrid-3-vl)-6-fluoro-4-pxo-3,4-dihydro-quinazolin-2-vl]-1-hydroxy-vinyll-nicotinonitrile: 2-(2-(6-Chloro-3-(2-methyl-phenyl)-4-oxo-3.4-dihydro-quinazolin-2-yll-1-hydroxy-yinyl)-nicotinonitrile:

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3-(2-Chloro-phenyl)-2-[2-(3-diethylaminomethyl-phenyl)-2-hydroxy-ethyl]-6-fluoro-3H-quinazolin-4-one;
              3-(2-Chloro-phenyl)-6-fluoro-2-[2-(3-pyrrolidin-1-ylmethyl-phenyl)-2-hydroxy-ethyl]-3H-quinazolin-4-one;
              3-(2-Chloro-pyrid-3-yl)-2-[2-(3-diethylaminomethyl-phenyl)-2-hydroxy-ethyl]-6-fluoro-3H-quinazolin-4-one;
              2-[2-(3-Diothylaminomethyl-phenyl)-2-hydroxy-ethyl]-6-fluoro-3-(2-fluoro-phenyl)-3H-quinazolin-4-one;
              2-[2-(3-Diethylaminomethyl-phenyl)-2-hydroxy-ethyl]-3-(2-fluoro-phenyl)-3H-quinazolin-4-one;
              3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl)-pyridin-2-yl)-2-hydroxy-vinyl]-6-fluoro-3H-quinazolin-4-one;
              2-{2-{3-(2-Chloro-pyrid-3-yl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl}-1-hydroxy-vinyl)-6-methyl-nicotinon-
              2-{2-{3-{2-Chloro-phenyl}-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl}-6-methyl-nicotinonitrile;
              2-{2-{6-Chloro-3-{2-chloro-phenyl}-4-oxo-3,4-dihydro-quinazolin-2-yi]-1-hydroxy-vinyl}-6-methyl-nicotinoni-
              2-[2-[3-(2-Chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl)-6-fluoro-nicotinoni-
              2-12-[3-(2-Chloro-phenyl)-6-fluoro-4-oxo-3.4-dihydro-quinazolin-2-yil-1-hydroxy-vinyl]-4-fluoro-benzonitrile:
              2-{2-{3-(2-Chloro-phenyl)-6-fluoro-4-oxo-3,4-dlhydro-quinazolin-2-yl]-1-hydroxy-vinyl}-4-methyl-benzonitrile;
              2-{2-{3-(2-Chloro-phenyl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrlmidin-2-yl]-1-hydroxy-vinyl]-6-methyl-nicotinon-
              2-(2-[3-(2-methyl-phenyl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxy-vinyl}-6-methyl-nicotinon-
               itrile:
               2-(2-(3-(2-Chloro-pyrid-3yl)-4-oxo-3,4-dihydro-thieno(3,2-d)pyrimldin-2-yl]-1-hydroxy-vinyl}-4-methyl-ben-
              2-[2-[3-(2-Chloro-phenyl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxy-vinyl]-4-fluoro-benzoni-
              trile:
              2-[2-[3-(2-Fluoro-phenyl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxy-vinyl]-4-methyl-benzoni-
              trile:
              2-[2-[3-(2-Chloro-phonyl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxy-vinyl}-benzonitrile; and,
              2-{2-{3-{2-Chloro-pyrid-3yl}-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxyvinyl}-benzonitrile;
              3-(2-chloro-phonyl)-6-fluoro-2-[2-hydroxy-2-(2-methyl-thiazol-4-yl)-vinyl]-3H-quinazolin-4-one;
              3-(2-chloro-phenyl)-6-fluoro-2-(2-hydroxy-2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
              2-{2-{3-{2-chloro-phenyl}-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl}-6-methyl-nicotinoni-
              2-{2-{3-{2-chloro-phenyl}-6-{luoro-4-oxo-3,4-dihydro-quinazolin-2-yl}-1-hydroxy-vinyl}-nicotinonitrile;
              2-{2-{3-{2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl]-benzonitrile;
              2-i2-i3-(2-chloro-pyridin-3-yl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-yinyl]-6-methyl-nicoti-
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              3-(2-chloro-phenyl)-6-fluoro-2-(2-hydroxy-2-pyridin-2-yl-yinyl)-3H-quinazolin-4-one:
               2-(2-(6-fluoro-3-(2-methyl-pyridin-3-yl)-4-oxo-3.4-dihydro-quinazolin-2-yll-1-hydroxy-vinyll-benzonitrile:
               2-(2-(3-(2-chloro-pyridin-3-vi)-6-fluoro-4-oxo-3.4-dihydro-quinazolin-2-vi]-1-hydroxy-vinyli-benzonitrile:
              3-(2-chloro-phenyl)-6-fluoro-2-[2-(2-fluoro-phenyl)-2-hydroxy-ethyl]-3H-quinazolin-4-one:
          (E) 3-(2-chloro-phenyl)-6-fluoro-2-[(pyridin-2-ylmethyl)-amino]-3H-quinazolin-4-one;
              6-f[uoro-3-(2-methyl-phenyl)-2-[(pyridin-2-ylmethyl)-amino]-3H-quinazolin-4-one;
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3-(2-chloro-phenyl)-6-fluoro-2-[(2-fluorophenyl-methyl)-amino]-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-2-f(2-cyanophenyl-methyl)-amino]-6-fluoro-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-2-[(6-diethylamInomethylpyridIn-2-ylmethyl)-amino]-6-fluoro-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-6-fluoro-2-[(6-pyrrolidin-1-ylmethyl-pyridin-2-ylmethyl)-amino]-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-thleno(3,2-d]pyrimidin-4-one; 3-(2-methyl-phenyl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-thieno[3,2-d]pyrimidin-4-one; so 3-(2-chloro-phenyl)-2-[(2-fluoro-phenylamino)-methyl]-3H-thieno[3,2-d]pyrimidin-4-one; 3-(2-chloro-pyrid-3-yl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-thleno[3,2-d]pyrimidin-4-one; 2-[[3-(2-chloro-pyrid-3-yl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-ylmethyl]-amino]-benzonitrile; 3-(2-chloro-phenyl)-2-[(3-pyrrolldin-1-ylmethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 6-chloro-3-(2-chloro-phenyl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 6-chloro-3-(2-chloro-phenyl)-2-[(3-diethylaminomethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 6-chloro-3-(2-chloro-pyrid-3-yl)-2-[(3-diethylaminomethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 6-chloro-3-(2-trifluoromethyl-phenyl)-2-[(3-diethylaminomethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 2-{[3-(2-chloro-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-ylmethyl]-amlno}-benzonitrile;

2-{(3-(2-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-ylmethyll-amino}-benzonitrile; 2-(16-fluoro-3-(2-methyl-phenyl)-4-oxo-3,4-dlhydro-quinazolin-2-ylmethyll-amino)-nicotinonitrile; 2-{[3-(2-chloro-phenyl)-4-oxo-3,4-dihydro-quinazolin-2-ylmethyl]-amino}-nicotinonitrile; 2-[[3-(2-chloro-pyridin-3-yl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-ylmethyl]-amino}-benzonitrile; 3-{[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-ylmethyll-aminol-benzonitrile: 3-(2-chloro-chenyl)-2-f(3-diethylaminomethyl-chenylamino)-methyll-6-fluoro-3H-quinazolin-4-one: 3-(2-chloro-phenyl)-6-fluoro-2-(pyrimidin-2-ylaminomethyl)-3H-quinazolin-4-one; 3-(2-chloro-pyridin-3-yl)-6-fluoro-2-(m-tolylamino-methyl)-3H-quinazolin-4-one; 3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[(6-methyl-pyridin-2-ylamino)-methyl]-3H-quinazolin-4-one: 3-(2-chloro-phenyl)-6-fluoro-2-(pyridin-2-ylaminomethyl)-3H-quinazolin-4-one; 3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[(3-pyrrolldin-1-ylmethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-6-fluoro-2-[(2-fluoro-benzylamino)-methyl]-3H-quinazolin-4-one; N-(3{[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-ylmethyl]-amino)-phenyl)-acetamide: 3-(2-chloro-phenyl)-6-fluoro-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 2-[(3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-ylmethyl]-amino)-nicotinonitrile; 3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[(2-fluoro-phenylamino)-methyl]-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-6-fluoro-2-[(2-fluoro-phenylamino)-methyl]-3H-quinazolin-4-one; 3-(2-chloro-phenyt)-6-fluoro-2-[(6-methyl-pyridin-2-ylamino)-methyl]-3H-quinazolin-4-one; and,

(F) an atropisomer of the formula

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ring A is a fused heteroaromatic ring, wherein said heteroaromatic ring is a 5 or 6 membered heteroaromatic ring, wherein said 6 membered heteroaromatic ring, taken together with the carbon atoms common to both rings of the bicyclic system, has the formula

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and wherein said 5 membered heteroaromatic ring, taken together with the carbon atoms common to both rings of the bicyclic system, has the formula

wherein said ring positions "A", "B", "D" and "E" may be independently selected from carbon or nitrogen:

wherein said ring positions "F", "G" and "J" may be independently selected from carbon, nitrogen, oxygen or sulfur, with the provise that: (a) if more than two of "F", "G" or "J" is a heterostom then said 5 membered heterostromatic ring is selected from the group consisting of (1,2,3)-triazole, (1,2,3)-thiadiazole, (1,2,5)-thiadiazole, and (1,2,5)-thiadiazole, and (1,2,5)-thiadiazole, and (1,2,5)-thiadiazole, and (1,2,5)-thiadiazole, and (1,2,5)-thiadiazole, and (1,2,5)-thiadiazole, (1,2,5)-thiadiazole, (1,2,5)-thiadiazole, and (1,2,5)-thia

where said fused heteroaromatic rings may optionally be independently substituted on any of the carbon or nitrogen atoms capable of forming an additional bond with a substituted not selected from hydrogen, (c_1-c_2) alloy, halogen, trifluoromathyl, amino- $(C+t_2)_n$, (c_1-c_2) alloy, hydroxy(C₁-c₂) alloy, (c_1-c_2) and (c_1-c_2) alloy, (c_1-c_2) and (c_1-c_2) and (c_1-c_2) and (c_1-c_2) alloy, (c_1-c_2) and (c_1-c_2) and (c_1-c_2) alloy, (c_1-c_2) alloy,

[0006] R⁶ is phenyl of the formula Ph¹ or a five or six membered heterocycle, wherein said 6-membered heterocycle has the formula

wherein 'N' is nitrogen; wherein said ring positions 'K', 'L' and 'M' may be independently selected from carbon or nitrogen, with the proviso that only one o' 'K', 'L' or 'M' can be nitrogen; wherein said five membered helerocycle has the formula

- wherein said ring positions "P," "Q" and "T" may be independently selected from carbon, nitrogen, oxygen or sulfur, with the proviso that only one of "P," "Q" or "T" can be oxygen or sulfur and at least one of "P," "Q" or "T" must be a hotercatom; wherein said "Ph" is a group of the formula
 - R¹⁴

wherein each R15 is, independently, hydrogen or (C1-C6) alkyl;

- asch of PR, R19 and R11 is selected, independently, from hydrogen, $(C_1 C_2)$ alityl optionally substituted with one to three halogen atoms, halo, $C_1 C_2$ jalixov, optionally substituted with one to three halogen atoms, $(C_1 C_2)$ alitylintol, R16- $C_1 C_2$ jalixov, $(C_1 C_2)$ alitylintol, R16- $C_1 C_2$ jalixov, $(C_1 C_2)$ alitylintol, R16- $C_1 C_2$ jalixov, $(C_1 C_2)$ jalixov, $(C_1 -$
- acit of H^2 , H^2 and H^3 is selected independently, from hydrogen, $(C_1 C_2)$ allyly optionally substituted with one to three halogen atoms, $(C_1 C_2)$ allowsy optionally substituted with one to three halogen atoms, $(C_1 C_2)$ allyliniol, $H^3 \cup (C_1 + C_2)$, $(C_1 C_2)$ allyliniol, $H^3 \cup (C_1 + C_2)$, $(C_1 C_2)$ allyliniol, $H^3 \cup (C_1 + C_2)$, $(C_1 C_2)$ allyliniol, $H^3 \cup (C_1 + C_2)$, $(C_1 C_2)$ allylyliniol, $H^3 \cup (C_1 + C_2)$, $(C_1 C_2)$ allylyliniol, $H^3 \cup (C_1 + C_2)$ allyliniol, $H^3 \cup (C_1 + C_2)$ allylyliniol, $H^3 \cup (C_1 + C_2)$ allyliniol, $H^3 \cup (C_1$
- each \mathbb{R}^{14} is, independently, hydrogen or halogen; each \mathbb{R}^{18} is, independently, hydrogen, $(C_1 \cdot C_6)$ alkyl- $(C_7 \cdot C_6)$ alkyl-(
 - each is hydrogen, cyano, (C1-C6)alkyl, halogen, trifluoromethyl, -CHO or (C1-C6)alkoxy;
 - n is an integer from zero to 3;

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- p is an integer from zero to 3; and
- wherein the dashed bond represented an optional double bond;

with the proviso that when R11 is hydrogen, one of R13 and R14 is other than hydrogen.

- [0007] In a specific embodiment of the above method, said dopamine agonist therapy is therapy comprising the administration of L-dopa or L-dopa in combination with an inhibitor of peripheral dopadecarboxylase such as carbidopa or becargide.
 - [0008] In another specific embodiment of the above method, said compound is a compound of group (A) or a pharmaceutically acceptable sait thereof.

[0009] In another specific embodiment of the above method, said compound is a compound of group (B) or a pharmaceutically acceptable sait thereof.

[0010] This invention also relates to a method of treating dyskinesias associated with dopamine agonist therapy in a mammal, such as a human, which comprises administering to said mammal an AMPA receptor antagentzing effective amount of a compound within group (A), (B), (C), (D), (E), or (F), or a pharmaceutically acceptable sait of said compound, wherein groups (A), (B), (C), (D), (E), and (F) are as defined above.

[0011] This invention also relates to a method of treating dyskinesias associated with dopamine agonist therapy in a mammal, such as a human, which comprises administering to said mammal an AMPA receptor antagonizing effective amount of a compound selected from the group consisting of an AMPA receptor antagonist referred to in PCT international application publication number WO 97/19066; the compounds "NS-1201" or "NS-479" developed or marketed by Neurosearch (Denmark); the compound "LY-311446" (2-amino-3-(2-(3-(1H-tetrazol-5-yl)phenoxy)phenyl)propionic acid), "LY-300164" (7-acetyl-5-(4-aminophenyl)-8(R)-methyl-8,9-dihydro-7H-1,3-dioxolo(4,5-h)(2,3)benzodjazepine), "LY-293606", "LY-293558", or "GYKI-53655" of Eli Lilly (United States) or any AMPA antagonist referred to in 20th CINP (Melbourne), 1996, Abs S-40-1; the compound "NNC-07-0775" of Novo Nordisk (Denmark) or any AMPA antagonist referred to in PCT international publication number WO 96/15100; the compound "SYM-2206" (4-(aminophenyl)-1-methyl-6,7-(methylenedioxy)-N-butyl-1,2-dihydrophthalazine-2-carboxamide) of Symphony Pharmaceuticals (United States) or any AMPA antagonist referred to in Journal of Medicianl Chemistry, 1996, 39, 343; the compound "S-17625" (6,7-dichloro-2(1H)-oxoquinoline-3-phosphonic acid) of Servier (France) or any AMPA antagonist referred to in Journal of Medicinal Chemistry, 1996, 39, 197; 2-carboxy-1-methyl-7-trifluoromethyllmidazo(1,2-a)quinoxalin-4(5H)-one or any AMPA antagonist referred to in PCT international publication numbers WO 95/21842, WO 96/08492, and WO 96/08493: 6-(4-pyridinyl)-1H-1,2,3-triazolo(4,5-a)pyrimidin-4(5H)-one or any AMPA antagonist referred to in Journal of Medicinal Chemistry 1995, 38, 587; any AMPA antagonist referred to in PCT international publication numbers WO 94/26747. WO 95/19346, WO 95/12594, WO 95/02601, WO 95/26342, WO 95/26349, WO 95/26350, WO 95/26351, WO 95/26352, WO 96/31511, and WO 95/02602; 2-amino-3-(3-hydroxy-5-(2-thienyl)isoxazol-4-yl)propionic acid or any AMPA antagonist referred to in PCT international publication number WO 95/12587; the compound "SYM-2250" of Symphony Pharmaceuticals (United States); the compound "S-18986" of Servier (France) or any AMPA antagonist referred to in 13th Int. Symp. Med. Chem. (Paris), 1994, Abs P29; the compound "NNC-07-9202 of Warner-Lambert (United States) or any AMPA antagonist reterred to in 208th ACS (Washington, DC), 1994, Abs MEDI 170; the compound "IDRA-21" (7-chloro-3-methyl-3,4-dihydro-2H-1,2,4-benzothiadiazine-5,5-dioxide) or any AMPA antagonist referred to in Soc. Neurosci. Abs (Washington, DC), 1993, Abs 124.7 and 124.8; the compound "NS-409" of Warner-Lambert (United States) or any AMPA antagonist referred to in J. Med. Chem. 1995, 38, 3720 or PCT international publication numbers WO 96/08494 and WO 96/08495; the compound "NS-393" of Neurosearch (Denmark); the compounds "SYM-2101", "SYM-2007" and "SYM-2057" of Symphony Pharmaceuticals (United States); the compound *AMPAlex* (1-(1,3-benzodioxolo-5-ylcarbonyl)piperidine) of Cortex Pharmaceuticals (United States) or any AMPA antagonist referred to in Scrip, 1995, 2088/9, 14 and Scrip, 1996, 2187, 21 or in PCT international publication number WO 96/38414; the compounds "LY-293558", "LY-215490", and decahydro-6-(2-(1H-tetrazol-5-vi)ethyl)- 3-isoquinolinecarboxylic acid (CAS registry no. 154652-83-2) or any AMPA antagonist referred to in J. Med. Chem., 1993, 36. 2046; the compound "YM-90K" (1,4-dihydro-6-(1H-imidazol-1-yl)-7-nitro-2,3-quinoxalinedione monohydrochloride (CAS registry no. 154164-30-4 or any AMPA antagonist referred to in Scrip, 1994, 1972, 14 or PCT international publication number WO 96/10023; the compound "aloracetarn" (N-(2-(3-formyl-2,5-dimethyl-1H-pymol-1-yl)ethyl)-acetamide)(CAS registry no. 119610-26-3) or any AMPA antagonist referred to in European Patent 287988; the compound "NS-257" of Wamer-Lambert; the compound "NNC-07-9202 of Novo Nordisk (Denmark) or any AMPA antagonist referred to in European Patent 283959 and Science, 1988, 241, 701; and the compound "aniracetam" of Roche (Switzerland) or 1-(4-methoxybenzyl)-2-pyrrolidinone (CAS registry no. 72432-10-1) or any AMPA antagonist referred to in

[0012] The term "treating", as used herein, unless otherwise indicated, means reversing, alleviating, inhibiting the progress of, or preventing the disorder or condition to which such term applies, or one or more symptoms of such disorder or condition. The term "treatment", as used herein, refers to the act of treating, as "treating" is defined immediately above.

European Patent 5143.

50 [0013] The term "dyskinesla(e)", as used herein, unless otherwise indicated, means any abnormal or uncontrollable movement incling, but not limited to, chorea, tremor, ballism, dystonia, athelosis, myoclorus and tic. [0014] The term or phrase "doparmine agonts therapy", as used herein, unless otherwise indicated, means any

toward in the term or princes coparamie agents inversely, as used interin, chiess otherwise indicated, means any therapy that increases dopamine receptor simulation, including, but not limited to, therapies that directly simulate dopamine receptors (such as bromcor/prine) and therapies that increase the levels of dopamine (such as Lodga or drugs which inhibit dopamine metabolism). Dopamine agents therapies include, but are not limited to, therapies comprising the administration of one or more of the following agents: L-dopa, L-dopa in combination with an L-dopa decarboystase inhibitor such as carbidopa or benserazide, bromcoripine, dihydroergocryptine, elisulergine, AF-14, slag-tide, percolled, pribedil, dopamine D1 receptor agents such as A-68999. AF-7698, dihydravine, and SKF-39893.

dopamine DZ receptor agonists such as carborgoline, lisuride, N-0434, naxegolide, PD-118440, pramipaxole, quinpirole and ropinitole; dopamine/B-adrianergic receptor agonists such as DPMS and dopexamine; obpamine/SH1 uptake inhibitor/S-HT-1A agonists such as rexindole; dopamine/opiate receptor agonists such as NIH-10494; e2-adrenergic antagonist/dopamine agonists such as tergurido; e2-adrenergic antagonist/dopamine D2 agonilats such as ergolines and taligeokoid, dopamine uptake inhibitors such as GBH-12996, GBH-13996, GMT4-52995, and NS-2141; monoamine oxidase-B shibitors such as sellegiline, N-(2-butly)-N-methylcropargylamine, N-methyl-ty-pre-ly/loropargylamine, AGN-1133, ergot derivatives, lazaberide, LU-54399, MD-290040 and mofegline; and COMT inhibitors such as CGP-29014, enlacapone and tolagone. Dopamine agonist therapy, as referred to in the present invention, is used in the resement of a central nervous existem dispodra such as, but not limited to. Parkinson's disease.

[0015] The term or phrase "dyskinesia associated with dopamine agonist therapy", as used herein, unless otherwise indicated, means any dyskinesia which accompanies, or folkwes in the course of, dopamine agonist therapy, or which is caused by, related to, or exacerbated by dopamine agonist therapy, wherein dyskinesia and dopamine agonist therapy, wherein dyskinesia and dopamine agonist therapy, wherein dyskinesia and dopamine agonist therapy.

(D16) In the compounds of groups (A) and (B), referred to above, the designation "(S)" appearing at the beginning of each compound refers to the configuration of each compound as an atropisomer. The compounds of group (F) are also atropisomers, and the compounds of group (S) (D) and (F) include atropisomers. Atropisomers are conformational isomers that occur when rotation about a single bond in the molecule is prevented or greatly slowed as a result of ateric interactions with other parts of the molecule and the substituents at both ands of the single bond are unsymmetrical. A detailed account of atropisomers can be found in Jerry March, Advanced Organic Chemistry, 101-102 (4th ed. 1992) and in Olds. Top. Stereochem., 14, 1-81 (1983). Each compound within groups (A), (B) and (F) has the same (S) configuration as an atropisomer. This configuration is described in United States provisional patent applications numbers 60/0399/6 (Idie Fabruary 28, 1997), both of which are referred to above. This configuration are all situated with respect to the first compound listed in group (A) which is (S)-31(2-chicro-phany)2-(12-(5-diethylarminomethyl-2-fluoro-phanyl)-virylj-6-fluoro-3H-quinazolin-4-one. Below, both atropisomeric conflourations are illustrated.

[0017] In the above structures, the bold lines indicate that the bolded above of the 2-chlorophenyl group are starically restricted so as to exist above the plane of the quinazolinone ring. This staric restriction is due to a rotational energy barrier preventing free rotation about the single bond connecting the nitrogen at position 3 of the quinazolinone ring to the 2-chlorophenyl group. The above (5) configuration is also illustrated informula of groups (7). The other compounds of groups (A), (8) and (F) are all attroplements having an (8) configuration analogous to the structure liabeled (78) Configuration "lilustrated above. The compounds of groups (O), (D), and (E) also exist, and may be isosited as, attroplements having and (8) and (F) configurations "listiated above."

[0018] In addition to the atropisomerism referred to above, the compounds of groups (A), (B), (C), (D), (E), and (F) may have chiral centers and therefore may exist in different enantiomeric and disastereomic forms. This invention relates to all optical isomers and all stereoisomers of compounds of groups (A), (B), (C), (D), (E), and (F), and mixtures thereof, and to all methods of treatment defined above that contain or employ them, respectively.

[0019] The method of the present invention also relates to the use of pharmaceutically acceptable acid addition salts of the compounds of groups (A), (B), (C), (D), (E), and (F). The acids which are used to prepare the pharmaceutically acceptable acid addition salts of the advernmentioned base compounds of this invention are those which form non-toxic acid addition salts, i.e., salts containing pharmacologically acceptable anions, such as the hydrochloride, hydrochromide, hydrochloride, initiate, sulfate, buttles, acid prosphate, acid phosphate, acid prosphate, aci

bitartrate, succinate, maleate, fumarate, gluconate, saccharate, benzoate, methanesulfonate, ethanesulfonate, benzenesulfonate, p-toluenesulfonate and pamoate [i.e., 1,1'-methylene-bis-(2-hydroxy-3- naphthoate)]salts.

[0020] The invention also relates to base addition salts of the compounds of groups (A), (B), (C), (C), (E), and (F). The chemical bases that may be used as reagents to prepare pharmacoutically acceptable base salts of hose compounds of groups (A), (B), (C), (D), (E), and (F) that are acide in nature are those that form non-toxic base salts with such compounds. Such non-toxic base salts include, but are not limited to those derived from such pharmacologically acceptable cations such as afteril metal actions (e.g., calcium and magnesium), armonium or water-soluble amine addition salts such as N-methylglucamine (meglumine), and the lower affained amonthing mad of their base sells of charmacountically acceptable catalle organic amines.

Detailed Description Of The Invention

[0021] The compounds of groups (A), (B), (C), (C), (E), and (F) are readily prepared. The compounds of group (A) can be prepared and separated as a stropiscomes according to one or more methods referred to in PCT/IBS8/00150 referred to above. The compounds of group (B) can be prepared and separated as stropiscomers according to one or more methods referred to above. The compounds of group (C) can be prepared according to one or more methods referred to in PCT international application number PCT/IBS7/00134 (publication no. WO 9745276), referred to above. The compounds of group (D) can be prepared according to one or more methods referred to above. The compounds of group (E) can be prepared according to one or more methods referred to above. The compounds of group (E) can be prepared according to one or more methods referred to above. The compounds of group (E) can be prepared according to one or more methods referred to in LP983042819, or leferred to above. The compounds of group (F) can be prepared according to one or more methods referred to in United States patent application (provisional no. 6005799) positified "Novel Atropisomers Of 2,3-Disubstituted-(5,6)+Hetrocaryflused-Pyrimidin-4-ones* filed July 23, 1998 with Bertrand L. Chenard and Williach, Wetch harmed as inventors, referred to above.

[0022] The compounds of groups (A), (B), (C), (D), (E), and (F), referred to above, which are basic in nature are capable of forming a wide variety of different salts with various inorganic and organic acids. Although such salts must be pharmaceutically acceptable for administration to animals, it is often desirable in practice to initially isolate a compound of group (A), (B), (C), (D), (E), or, (F) from the reaction mixture as a pharmaceutically unacceptable said and then simply convert the latter back to the free base compoundby treatment with an alkaline reagent, and subsequently convert the tree base to a pharmaceutically acceptable acid addition salt. The acid addition salts of the base compounds of the method of this invention are readily prepared by treating he base compound with a substantially acquivation are madely repeared by treating he base compound with a substantially acquivation and the properties of the properties of

[0023] The acids which are used to prepare the pharmaceutically acceptable acid addition salts of the base com-

The acus wintof are used to preject on preject on present one present each document sais on the base compounds of groups (A), (B), (C), (C)), (C), and (C) are those which form non-toxic acid addition salls, i.e., salts containing pharmacologically acceptable arisons, such as hydrochioride, hydrobromide, hydrocodde, nitrate, sulfate or bisullate, phosphate or acid phosphate, a ceated, lectate, citrate or acid cirarias, sucretas, malester, furnated, glucorate, saccharate, benzoate, methanesulfortate and paramote [i.e., 1,1-methylene-bis-(2-hydroxy-3-naphthoate)] salts.

[0024] Those compounds of groups (A), (B), (C), (D), (E), and (F) which are action in nature are capable of forming base salts with various pharmacologically acceptable cations. Examples of such salts include the alkali metal or alkaline-earth metal salts and particular, the sodium and potassium salts. These salts are all prepared by conventional techniques. The chemical bases which are used as reagents to prepare the pharmacoulcially acceptable base salts of this invention are those which form non-rioots losse salts with the herein described acidic compounds of groups (A), (B), (C), (D), (E), and (F). These non-look base salts include those derived from such pharmacologically acceptable cations, as sodium, potassium, calcium and magnesium, etc. These salts are assible to prepared by the regions of the realing the corresponding acidic compounds with an aqueous solution containing the desired pharmacologically acceptable cations, and then waxporating the resulting solution to dyness, preferably under reduced pressure. Alternatively, they may also be prepared by mixing lower alkanotic solutions of the acidic compounds and the desired alkalin metal alkoxide together, and then evaporating the resulting solution to dyness in the same manner as before. In either case, solicitionstic quantilies of reagents are preferably employed in order to ensure completeness of reaction of maximum product of vields of the desired finial product.

[028] The *in vitro* and *in vivo* activity of the compounds of groups (A), (B), (C), (D), (E), and (F) for AMPA receptor antagonism can be determined by methods available to one of ordinary skill in the art. One method for determining the activity of the compounds of groups (A), (B), (C), (D), (E), and (F) is by blockage of AMPA receptor activation-induced ⁴Co₂²⁺ uptake into neurons. A specific method for determining blockage of AMPA receptor activation-induced ⁴Co₂²⁺ uptake with neurons is described below.

Neuronal primary cultures

10028] Primary cultures of rat cereballar granule neurons are prepared as described by Parks, T.N., Artman, L.D., Atasti, N., and Nameth, E.F., <u>Modulation Ol. Methyl-D-Aspartate Receptor-Mediated Increases in Ovcosile Calcium In Cultured Part Cereballar (Granule Cells)</u>, Brain Pas. 582, 13-22 (1991). According to this method, cereballar are removed from 8 day old CD rats, minced into 1 mm piaces and incubated for 15 minutes at 37°C in calcium-magnesium free Tyrody's solution containing 0.1% stypism. The Issue is that fruturated using a fine bore Pastaum pipetis. The cell suspension is plated onto poly-D-lysine costed 96-well tissue culture plates at 10° cells per well. Medium consists of Minimal Essential Medium (McMy, with Earle's sats, 10% heat lancetivate of Fells Deriven Serum, 2 mM Ligitamine, 21 mM glucose, Penicillin-Streptomycin (100 units per mi) and 25 mM KCI. Atter 24 hours, the medium is replaced with fresh medium containing 10 uMc vicosien earthing-cide to Inhibit cell division. Cultures are used 6 to 8 days later.

AMPA receptor activation-induced 45Ca2+ uptake

The effects of drugs on AMPA receptor activation-induced ⁴⁵Ca²⁺ uptake can be examined in att cerebality granule cell cultures prepared as described above. Cultures in 95 well plates are preincubated for approximately 3 hours in serum free medium and then for 10 minutes in a Mg²⁺-free balanced salt solution (in mMt 120 NaCl, 5 KCl, 0.3 Nati-pPC₃ 1.8 Cacls, 22.0 glucosa and 10.0 HEPES at pH 7.4 orotalning 0.5 mM DTT, 10 uM glycine and drugs at 2K final concentration. The reaction is started by rapid addition of an equal volume of the balanced salt solution or containing 100 µM of the AMPA receptor agnists trains each and ⁴²Cac²⁺ (Intal specific activity 250 CWmnol). After 10 minutes at 25°C, the reaction is stopped by speriant gith ⁴⁴Cac²⁺ containing solution and westing the cells 50 minutes at 25°C, the reaction is stopped by speriant gith ⁴⁴Cac²⁺ containing solution and westing the cells 50 minutes at 25°C, the reaction is stopped by speriant gith ⁴⁴Cac²⁺ containing a solution and vasting the cells 50 minutes at 25°C, the reaction is stopped by speriant gith ⁴⁴Cac²⁺ containing mine of the cell of

[0028] The following procedure may be used to assess the efficacy of the compounds of groups groups (A), (B), (C), (C)), (E), and (F) in the treatment of the prince of th

[0030] For oral administration, the pharmaceutical compositions may take the form of, for exemple, bables or capculate prepared by conventional means with pharmaceutically exceptable excipients such as binding agents (e.g.,
pregelatinised maize starch, polyvinylpyrrolidone or hydroxypropyl methylcellulose); fillers (e.g., lactose, microcrystalline cellulose or calcium phosphate); buticrants (e.g., magnesium steared, side or side, disintegrants (e.g., potato
starch or socium starch glycotlate); or wetting agents (e.g., sodium lauryl sulphate). The tablets may be coated by
methods well known in the art. Liquid preparations for oral administration may take the form of, for example, solutions,
syrupe or suspensions, or they may be presented as a dry product for constitution with water or other suitable vehicle
before use. Such liquid preparations may be propared by conventional means with pharmaceutically acceptable additives such as suspending agents (e.g., socibios grupp, methyl cellulose or hydrogenated edible fast); cmulatifying
agents (e.g., lectitin or acacial); non-aqueous vehiclas (e.g., almond oil, oily esters or ethyl alcohol); and preservatives
(e.g., methyl or provid p-indyroxybenzoates or sorbite acid).

[0031] For buccal administration, the pharmaceutical composition may take the form of lablets or lozenges formulated

in conventional manner.

[0032] The active compounds may be formulated for parenteral administration by injection, including using conventional catheterization techniques or influsion. Formulations for injection may be presented in unit dosage form, e.g., in ampulse or in multi-dose containers, with an added preservative. The compositions may take such forms as suspensions, solutions or emulsions in oily or expectors vehicles, and may contain formulating agents such as suspending, stabilizing and/or dispersing agents. Alternatively, the active hyperdient may be in powder form for reconstitution with a sulfable vehicle. e.a. active for vooren-free vetter, before use.

[0033] The active compounds may also be formulated in rectal compositions such as suppositories or retention enemas, e.g., containing conventional suppository bases such as occos butter or other physicians.

[0034] For intranasal administration or administration by inhalation, the active compounds are conveniently delivered in the form of a solution or suspension from a pump spray container that is squeezed or pumped by the patient or as an aerosol spray presentation from a pressurized container or a nebulizer, with the use of a suitable propellant, e.g., dichlorodifluoromethane, trichlorofluoromethane, dichlorofluoromethane, carbon dioxide or other suitable gas. In the case of a pressurized aerosol, the dosage unit may be determined by providing a valve to deliver a metered amount. The pressurized container or nebulitizer may contain a solution or suspension of the active compound. Capsules and cartridges (made, for example, from gelatin) for use in an inhalate or insufficior may be formulated containing a powder mix of an active compound and a suitable powder pase such as factore or starch.

[0035] A proposed dose of the active compounds for use in the method of the present invention for oral, parenteral or buccal administration to the average adult human requiring treatment is 0.01 to 100 mg/kg of the active ingredient er unit dose which bould be administered. For example, 1 to 4 times per day.

[0035] Aerosof formulations for use in the method of the present invention in the treatment of an average actual human are preferably arranged so that each metered does or 'putf' of accost containe 20 yet to 1000 yet of the actual number of the original contained to the put of the original contained to the original contained to

5 [0037] For transdermal administration the composition may take the form of patches, creams, cintments or ionto-phoresis formulated in conventional manner such as described in United States Patents 5,004,610 and 5,384,630, issued Acril 2, 1891 and November 15, 1994 respectives.

30 Claims

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 The use of a compound selected from groups (A), (B), (C), (D), (C), or (F) or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating dyskinesia associated with dopamine agonist therapy, wherein groups (A), (B), (C), (D), (E), and (F) are defined as follows:

(A) (S)-3-(2-chloro-phenyl)-2-[2-(5-diethylaminomethyl-2-fluoro-phenyl)-vinyl]-6-fluoro-3H-quinazolin4-one;

- (S)-3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-2-[2-(4-diethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
- (S)-3-(2-chloro-phenyl)-2-[2-(4-dennylarininomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
- (S)-3-(2-bromo-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
- (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methoxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
- (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(4-methyl-pyrimidine-2-yl)-vinyl]-3H-quinazolin-4-one;
- (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-[6-(isopropylamino-methyl)-pyridin-2-yl]-ethyl]-9H-quinazolin-
- 4-one; (S)-6-fluoro-2-[2-(2-methyl-thiazol4-yl)-vinyl]-3-(2-methyl-phenyl)-3H-quinazolin-4-one;
 - (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(2-methyl-lhiazol-4-yl)-vinyl]-3H-quinazolin-4-one;
 - (S)-2-[2-(2-dimethylaminomethyl-thiazol-4-yl)-vinyl]-6-fluoro-3-(2-fluoro-phenyl)-3H-quinazolin-4-one;
 - (S)-3-(2-bromo-phenyl)-6-fluoro-2-[2-(2-methyl-thiazol-4-yl)-vinyl]-3H-quinazolin-4-one;
 - (S)-3-(2-chloro-phenyl)-2-[2-(2-methyl-thiazol-4-yl)-vinyl]-3H-quinazolin-4-one;
 - (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one; (S)-3-(2-bromo-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
 - (S)-6-chloro-2-(2-pyridin-2-yl-vinyl)-3-o-tolyl-3H-quinazolin-4-one;
 - (S)-3-(2-chloro-phenyl)-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
 - (S)-6-chloro-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3-o-tolyl-3H-quinazolin4-one;
 - (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-ethyl)-3H-quinazolin-4-one;
 - (S)-6-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yi]-vinyl]-pyridine-2-carbaldehyde;
 - (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methylaminomethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;

- EP 0 900 568 A2 (S)-N-(6-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl)-pyridin-2-ylmethyl)-Nmethyl-acetamide; (S)-6-(2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl]-pyridine-2-carbonitrile; (S)-3-(2-fluoro-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one; (S)-3-(2-bromo-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one; (S)-3-(4-bromo-2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-9H-quinazolin-4-one; (S)-N-(6-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridin-2-ylmethyl)-Nethyl-acetamide: (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-fluoromethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-pyrrolidin-1-ylmethyl-pyridin-2-yl)-ethyl]-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-2-[2-(6-{[ethyl-(2-hydroxy-ethyl)-amino]-methyl}-pyridin-2-yl}-vinyl]-6-fluoro-3Hquinazolin4-one: (\$)-3-(2-chloro-phenyl)-6-fluoro-2-{2-[6-(isopropylamino-methyl)-pyridin-2-yl]-vinyl}-3H-quinazolin-4-one: (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-[6-(2-methyl-piperidin-1-ylmethyl)-pyridin-2-yl]-vinyl)-3H-quinazolin-4-one: (\$)-3-(2-chloro-phenyl)-2-[2-(6-ethoxymethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one; (S)-3-(2-chloro-phenyl)-2-{2-[6-(2,5-dihydro-pyrrol-1-ylmethyl)-pyridin-2-yl]-vinyl}-6-fluoro-3Hquinazolin4-one: (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-[6-(4-methyl-piperid)n-1-ylmethyl)-pyridin-2-yl]-vinyl)-3H-quinazolin-4-one:
 - (S)-6-bromo-2-[2-(6-methyl-pyridin-2-yl)-vlnyl]-3-o-tolyl-3H-quinazolin-4-one;
 - (S)-6-bromo-2-(2-pyridin-2-yl-vinyl)-3-o-tolyl-3H-quinazolin-4-one;
 - (S)-6-fluoro-3-(2-fluoro-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
 - (S)-3-(2-chloro-phenyl)-6-methyl-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
 - (S)-3-(2-chloro-phenyl)-2-[2-(6-dimethylaminomethyl-pyrldin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
 - (S)-6-fluoro-3-(2-fluoro-phenyl)-2-[2-(6-methyl-pyridin-2-yl)-vlnyl]-9H-quinazolin-4-one;
- (S)-3-(2-chloro-phenyl)-2-[2-(6-[[(2-dimethylamino-ethyl)-methyl-amino]-methyl]-pyridin-2-yl)-vinyl]-
 - 6-fluoro-3H-quinazolin4-one:

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- (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-hydroxymethyl-pyridin-2-yl)-vinyl]-9H-quinazolin-4-one; (S)-acetic acid 6-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridin-2-yl methyl ester;
- (S)-6-[2-[3-(2-bromo-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridine2-carbaldehyde;
- (S)-3-(2-bromo-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
- (S)-acetic acid 6-{2-[3-(2-bromo-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quin-azolin-2-yl]-vinyl}-pyridin-2-ylmethyl ester;
- (S)-diethylamino-acetic acid 6-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl]pyridin-2-ylmethyl ester;
- (S)-3-(2-chloro-phenyl)-2-[2-(6-difluoromethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
- (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methoxy-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
- (S)-2-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-6-methyt-nicotinonitrile;
- (S)-2-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-ethyl}-6-methyl-nicotinonitrile;
- (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-pyrimidine-2-yl-ethyl)-3H-quinazolin-4-one;
 - (S)-3-(2-chloro-phenyl)-2-[2-(4,6-dimethyl-pyrimidine-2-yl)-vinyl]-6-fluoro-9H-quinazolin-4-one;
 - (S)-2-(2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dlhydro-quinazolin-2-yl]-vinyl}-nicotinonitrile;
 - (S)-3-(2-chloro-phenyl)-6-fluoro-2-(2-[6-[(3-methyl-butylamino)-methyl]-pyridin-2-yl]-ethyl)-3H-quinazolin-4-one:
 - (S)-2-(2-(3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-ethyl]-nicotinonitrile;
 - (S)-2-[2-(6-chloro-4-oxo-3-o-tolyl-3,4-dihydro-quinazolin-2-yl)-vinyl]-benzonitrile;
 - (S)-2-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl]-4-methyl-benzonitrile; (S)-3-(2-bromo-phenyl)-6-fluoro-2-[2-(6-hydroxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; and
 - (S)-3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-pyrrolidin-1-ylmethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
 - (B) (S)-6-fluoro-2-[2-(2-fluoro-phenyl)-vinyl]-3-(2-methyl-pyrldin-3-yl)-3H-quinazolin-4-one;
 - (S)-2-[2-[6-fluoro-3-(2-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl]-benzonitrile;
 - (S)-2-{2-[6-fluoro-3-(2-methylpyridin-3-yl)-4-oxo-3,4-dihydroquinazolin-2-yl]-vinyl}-benzonitrile;

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(S)-2-{2-(3-(2-chloro-pyridin-3-yi)-6-fiuoro-4-oxo-3,4-dihydroquinazolin-2-yi}-vinyl}-benzonitrile;
                   (S)-2-{2-[6-fluoro-3-(2-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-4-methyl-benzoni-
                   trile:
                   (S)-2-(2-[3-(2-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl)vinyl}-benzonitrile;
                   (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(thiazol-2-yl)-vinyl]-3H-quinazolin-4-one;
                   (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(2-methyl-thiazol-4-yl)-vinyl]-3H-quinazolin-4-one;
                   (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(4-methyl-thiazol-2-yl)-vinyl]-3H-quinazolin-4-one;
                   (S)-2-[2-(5-diethylaminomethyl-2-fluoro-phenyl)-vinyl]-6-fluoro-3-(2-methyl-pyridin-3-yl)-3H-quinazolin-
                   4-one:
                   (S)-6-fluoro-2-[2-(2-fluoro-5-pyrrolidin-1-ylmethyl-phenyl)-vinyl]-3-(2-methyl-pyridin-3-yl)-3H-quinazolin-
                   4-one:
                   (S)-3-(2-chloro-pyridin-3-yl)-2-[2-(2-fluoro-phenyl)-vinyl]-3H-quinazolin-4-one;
                   (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-(6-methyl-phenyl-2-yl)-vinyl]-3H-quinazolin-4-one;
                   (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-(fluoro-phenyl)-vinyl]-3H-quinazolin-4-one;
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                   (S)-6-chloro-2-[2-(2-fluoro-phenyl)-vlnyl]-3-(2-methyl-pyridin-3-yl)-3H-quinazolin-4-one;
                   (S)-6-chloro-2-[2-(2-fluoro-phenyl)-vinyl]-3-(3-methyl-1-oxy-pyridin-4-yl)-3H-quinazolin-4-one;
                   (S)-3-{2-(3-(2-chloro-pyridin-3-yl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-benzaldehyde;
                   (S)-3-[2-[3-(2-chloro-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-benzaldehyde;
                   (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-(3-hydroxymethyl-phenyl)-vinyl]-3H-quinazolin-4-one;
                   (S)-3-(2-chloro-pyridin-3-yl)-2-{2-[3(1,4-dioxa-8-aza-spiro[4.5]dec-8-ylmethyl)-phenyl]-vinyl}-6-fluoro-
                   3H-quinazolin-4-one;
                   (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-[3-(4-pyrrolidin-1-yl-piperidin-1-ylmethyl)-phenyl]-vinyl]-3H-
                   quinazolin-4-one:
                   (S)-2-[2-[3-(2-chloro-pyridin-3-yl-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl]-benzonitrile;
                   (S)-2-{2-[3-(2-chloro-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-benzonitrile;
                   (S)-2-[2-(2-fluoro-phenyl)-vinyl]-3-(2-methyl-pyridin-3-yl)-3H-quinazolin-4-one;
                   (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-hydroxy-phenyl)-vinyl]-3H-quinazolin-4-one;
                   (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(2-methyl-thiazol-4-yl)-ethyl]-3H-quinazolin-4-one;
                   (S)-6-fluoro-3-(2-chloro-pyridin-3-yl)-2-[2-(2-dimethylamino-methylthiazol-4-yl)-vinyl]-3H-quinazolin-
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                   4-one;
                   ($)-2-[2-(5-Diethylaminomethyl-2-fluoro-phenyl)-vinyl]-6-fluoro-3-(4-methyl-pyridin-3-yl)-3H-quinazolin-
                   4-one:
                   (S)-4-Diethylaminomethyl-2-[2-(6-fluoro-3-(4-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-vi-
                   nyl)-benzonitrile;
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                   (S)-2-[2-(5-Diethylaminomethyl-2-fluoro-phenyl)-vinyl]-6-fluoro-3-(3-methyl-pyrazin-2-yl)-3H-
                   quinazolin4-one;
                   (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(2-dimethylamino-methylthiazol-4-yl)-vinyl]-3H-quinazolin-
                   4-one;
                   (S)-6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(2-methyl-oxazol-4-yl)-vinyl]-3H-quinazolin-4-one;
                   (S)-6-fluoro-3-(2-chloro-pyridin-3-yl)-2-[2-(thiazol-2-yl)-vinyl]-3H-quinazolin-4-one;
                   (S)-6-fluoro-3-(4-methyl-pyridin-3-yl)-2-[2-(4-methyl-thiazol-2-yl)-vlnyl]-3H-quinazolin-4-one;
                   (S)-3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[2-(2-hydroxy-phenyl)-vinyl]-3H-quinazolin-4-one; and,
                   (S)-6-fluoro-2-[2-(2-fluoro-5-pyrrolidin-1-ylmethyl-phenyl)-ethyl]-3-(2-methyl-pyridin-3-yl)-3H-
                   quinazolin4-one;
               (C) 3-(2-chioro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
                   3-(2-bromo-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
                   6-chloro-2-(2-pyridin-2-yl-vinyl)-3-o-tolyl-3H-quinazolin-4-one;
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                   3-(2-chloro-phenyl)-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-9H-quinazolin-4-one;
                   6-chloro-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3-o-tolyl-3H-quinazolin-4-one;
                   3-(2-chloro-phenyl)-6-fluoro-2-(2-pyridin-2-yl-ethyl)-3H-quinazolin-4-one;
                   6-{2-(3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridine-2-carbaldehyde;
                   3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methylaminomethyl-pyrldin-2-yl)-vinyl]-3H-quinazolin-4-one;
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                   N-(6-{2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridin-2-ylmethyl)-N-me-
                   thyl-acetamide;
                   3-(2-chloro-phenyl)-2-[2-(4-diethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
                   6-{2-{3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridine-2-carbonitrile;
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3-(2-fluoro-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
                   3-(2-bromo-phenyl)-6-fluoro-2-(2-pyridin-2-yl-vlnyl)-3H-quinazolin-4-one;
                   3-(4-bromo-2-chloro-phenyi)-6-lluoro-2-(2-pyridin-2-yl-vlnyi)-3H-quinazolin-4-one;
                   3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
                   N-(6-{2-{3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl]-pyridin-2-ylmethyl)-N-
                   ethyl-acetamide;
                   3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-fluoromethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
                   3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-pyrrolidin-1-ylmethyl-pyrldin-2-yl)-ethyl]-3H-quinazolin-4-one;
                   3-(2-chloro-phenyl)-2-[2-(6-{[ethyl-(2-hydroxy-ethyl)-amino]-methyl}-pyridin-2-yl)-vinyl]-6-fluoro-3H-
                   quinazolin4-one:
                   3-(2-chloro-phenyl)-6-fluoro-2/2-f6-(isopropylamino-methyl)-pyridin-2-yl]-vinyl}-3H-quinazolin-4-one;
                   3-(2-chloro-phenyl)-6-fluoro-2-{2-[6-(2-methyl-piperidin-1-ylmethyl)-pyridin-2-yl]-vinyl}-3H-quinazolin-
                   3-(2-chloro-phenyl)-2-(2-(6-ethylaminomethyl-pyridin-2-yl)-yinyll-6-fluoro-3H-quinazolin-4-one:
                   3-(2-chloro-phenyl)-2-[2-(6-ethoxymethyl-pyridin-2-yl)-yinyl]-6-fluoro-3H-quinazolin-4-one;
                   3-(2-chloro-phenyl)-2-[2-[6-(2,5-dihydro-pyrrol-1-ylmethyl)-pyridin-2-yl]-vinyl}-6-fluoro-3H-quinazolin-
                   3-(2-chloro-phenyl)-6-fluoro-2-{2-f6-(4-methyl-piperidin-1-ylmethyl)-pyridin-2-yll-yinyl)-3H-quinazolin-
                   4-one:
                   6-bromo-2-[2-(6-methyl-pyridin-2-yl)-yinyl]-3-a-tolyl-3H-quinazolin-4-one:
                   6-bromo-2-(2-pyridin-2-yl-vinyl)-3-o-tolyl-3H-quinazolin-4-one:
                   6-fluoro-3-(2-fluoro-phenyl)-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
                   1-benzyl-5-(2-methyl-[1,3]dioxolan-2-yl)-2-oxo-2,3-dihydro-1H-indole-3-carboxylic acid (3-phenylcar-
                   bamoyl-phenyl)-amide;
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                   3-(2-chloro-phenyl)-6-methyl-2-(2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
                   3-(2-chloro-phenyl)-2-[2-(6-dimethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
                   6-fluoro-3-(2-fluoro-phenyl)-2-[2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
                   3-(2-chloro-phenyl)-2-[2-(6-{[(2-dimethylamino-ethyl)-methyl-amino]-methyl}-pyridin-2-yl)-vinyl}-6-fluoro-
                   3H-quinazolin4-one;
                   3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-hydroxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
                   acetic acid 6-{2-f3-(2-chloro-phenyi)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yi]-yinyi}-pyridin-2-yimethyi
                   ester:
                   6-(2-43-(2-bromo-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl)-pyridine-2-carbaldehyde;
                   3-(2-bromo-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-6-fluoro-3H-quinazolin-4-one;
                   3-(2-bromo-phenyl)-2-[2-(6-diethylaminomethyl-pyridin-2-yl)-vinyl]-3-1-quinazolin-4-one;
                   acetic acid 6-{2-{3-(2-bromo-phenyl)-6-fluoro4-oxo-3,4-dihydro-quinazolin-2-yl]-vinyl}-pyridin-2-ylmethyl
                   ester:
                   3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-methoxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
                   diethylamino-acetic acid 6-{2-[3-(2-chloro-phenyl)-6-fluoro4-oxo-3,4-dihydroquinazolin-2-yl]-vinyl}-pyrid-
                   in-2-ylmethyl ester,
                   6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[2-(2-methyl-thiazol-4-yl)-yinyl]-3H-quinazolin-4-one:
                   3-(2-bromo-phenyl)-6-fluoro-2-[2-(6-hydroxymethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one; and,
                   3-(2-chloro-phenyl)-6-fluoro-2-[2-(6-pyrrolidin-1-ylmethyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
              (D) 3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl)-pyridin-2-yl)-2-hydroxy-vinyl]-6-fluoro-3H-quinazotin4-one
                   6-Chloro-3-(2-chloro-phenyl)-2-[2-hydroxy-2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
                   2-[2-[3-(2-Chloro-phenyl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl]-nicotinonitrile;
                   2-(2-(3-(2-Chloro-pyrid-3-yl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl)-nicotinonitrile;
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                   2-[2-[6-Chloro-3-(2-methyl-phenyl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vlnyl]-nicotinonitrile;
                   3-(2-Chloro-phenyl)-2-[2-(3-diethylaminomethyl-phenyl)-2-hydroxy-ethyl]-6-fluoro-3H-quinazolin-4-one;
                   3-(2-Chloro-phenyl)-6-fluoro-2-[2-(3-pyrrolidin-1-ylmethyl-phenyl)-2-hydroxy-ethyl]-3H-quinazolin-4-one;
                   3-(2-Chloro-pyrid-3-yl)-2-[2-(3-diethylaminomethyl-phenyl)-2-hydroxy-ethyl]-6-fluoro-3H-quinazolin-
                   4-one:
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                   2-[2-(3-Diethylaminomethyl-phenyl)-2-hydroxy-ethyl]-6-fluoro-3-(2-fluoro-phenyl)-3H-quinazolin-4-one;
                   2-[2-(3-Diethylaminomethyl-phenyl)-2-hydroxy-ethyl]-3-(2-fluoro-phenyl)-3H-quinazolin-4-one;
                   3-(2-chloro-phenyl)-2-[2-(6-diethylaminomethyl)-pyridin-2-yl)-2-hydroxy-vinyl]-6-fluoro-3H-quinazolin-
                   4-one:
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	$2\cdot (2\cdot [3\cdot (2-Chloro-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl\cdot nloo-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl\cdot nloo-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl\cdot nloo-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl\cdot nloo-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl\cdot nloo-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl\cdot nloo-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl\cdot nloo-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl-nloo-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl-nloo-pyrid-3\cdot yl)\cdot 6\cdot lluoro-4\cdot oxo-3, 4\cdot dihydro-quinazolin-2\cdot yl]\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 6\cdot methyl-nloo-pyrid-3\cdot yl)\cdot 1\cdot hydroxy\cdot vlnyl]\cdot 1\cdot hydroxy\cdot $
	tinonitrile;
	2-[2-[3-(2-Chloro-phenyl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl)-6-methyl-nicotinonitrile; 2-[2-[6-Chloro-3-(2-chloro-phenyl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl]-6-methyl-nicoti-
5	nonitrile; 2-{2-{3-{42-Chloro-phenyl}-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl}-6-fluoro-nicoti-
	2-{2-{3-{2-Onoro-phenyi)-o-nuoro-4-oxo-3,4-omyoro-quinazoiii-2-yi]-1-nyoroxy-vinyi}-o-nuoro-nicon- nonitrile:
	2-{2-{3-(2-Chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl]-4-fluoro-benzoni-
	trile:
10	2-(2-(3-(2-Chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl]-4-methyl-ben-
	zonitrile:
	2-[2-[3-(2-Chloro-phenyl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxy-vinyl]-6-methyl-nico-
	tinonitrile;
	2-[2-[3-(2-melhyl-phenyl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxy-vinyl]-6-methyl-nico-
15	tinonitrile;
	2-[2-[3-(2-Chloro-pyrid-3yl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxyvinyl}-4-methyl-
	benzonitrile;
	2-{2-[3-(2-Chloro-phenyl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxy-vinyl)-4-fluoro-ben-
	zonitrile;
20	2-[2-[3-(2-Fluoro-phenyl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxyvinyl}-4-methyl-ben-zonitrile:
	zonitrie; 2-(2-(3-(2-Chloro-phenyl)-4-oxo-3,4-dihydro-thieno(3,2-di)pyrimidin-2-yl]-1-hydroxyvinyl]-benzonitrile;
	and.
	2-(2-[3-(2-Chloro-pyrid-3yl)-4-oxo-3,4-dihydro-thieno[3,2-d]pyrimidin-2-yl]-1-hydroxyvinyl]-benzonitrile;
25	3-(2-chloro-phenyl)-6-fluoro-2-[2-hydroxy-2-(2-methyl-thiazol-4-yl)-vinyl]-3H-quinazolin-4-one;
	3-(2-chloro-phenyl)-6-fluoro-2-[2-hydroxy-2-(6-methyl-pyridin-2-yl)-vinyl]-3H-quinazolin-4-one;
	2-[2-[3-(2-chlorg-phenyl)-6-fluorg-4-oxo-3,4-dihydrg-quinazolin-2-yl]-1-hydroxy-yinyl]-6-methyl-nicoti-
	nonitrile;
	2-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl}-nicotinonitrile;
30	2-[2-[3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl]-benzonitrile;
	2-{2-{3-(2-chloro-pyrldin-3-yl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl]-6-methyl-
	nicotinonitrile;
	3-(2-chloro-phenyl)-6-fluoro-2-(2-hydroxy-2-pyridin-2-yl-vinyl)-3H-quinazolin-4-one;
	2-{2-[6-fluoro-3-(2-methyl-pyridin-3-yl)-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl]-benzonitrile;
35	2-[2-[3-(2-chloro-pyridin-3-yl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-yl]-1-hydroxy-vinyl]-benzonitrile;
	3-(2-chloro-phenyl)-6-fluoro-2-[2-(2-fluoro-phenyl)-2-hydroxy-ethyl]-3H-quinazolin-4-one;
	(E) 3-(2-chloro-phenyl)-6-fluoro-2-[(pyridin-2-yimethyl)-amino]-3H-quinazolin-4-one;

6-fluoro-3-(2-methyl-phenyl)-2-[(pyridin-2-ylmethyl)-amino]-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-6-fluoro-2-[(2-fluorophenyl-methyl)-amino]-9H-quinazolin-4-one; 3-(2-chloro-phenyl)-2-[(2-cyanophenyl-methyl)-amino]-6-fluoro-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-2-[(6-diethylaminomethylpyridin-2-ylmethyl)-amino]-6-fluoro-3H-quinazotin-4-one; 3-(2-chloro-phenyl)-6-fluoro-2-[(6-pyrrolidin-1-ylmethyl-pyridin-2-ylmethyl)-amino]-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-thieno[3,2-d]pyrimidin-4-one; 3-(2-methyl-phenyl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-lhieno[3,2-d]pyrimidin-4-one; 3-(2-chloro-phenyl)-2-[(2-fluoro-phenylamino)-methyl]-3H-thieno[3,2-d]pyrimidin-4-one; 3-(2-chloro-pyrid-3-yl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl)-3H-thieno[3,2-d]pyrimidin-2-{[3-(2-chloro-pyrid-3-yl)-4-oxo-3,4-dihydro-thleno[3,2-d]pyrimidin-2-ylmethyl]-amino}-benzonitrile; 3-(2-chloro-phenyl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 6-chloro-3-(2-chloro-phenyl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 6-chloro-3-(2-chloro-phenyl)-2-[(3-diethylaminomethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 6-chloro-3-(2-chloro-pyrid-3-yl)-2-[(3-diethylaminomethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 55 6-chloro-3-(2-trifluoromethyl-phenyl)-2-[(3-diethylaminomethyl-phenylamino)-methyll-3H-quinazolin-4-one: 2-{[3-(2-chloro-pyridin-3-vl)-4-oxo-3,4-dihydro-quinazolin-2-vlmethyl]-amino)-benzonitrile: 2-{[3-(2-methyl-pyridin-3-yl)-4-oxo-3, 4-dihydro-quinazolin-2-ylmethyl]-amino}-benzonitrile;

- 2-([6-fluoro-3-(2-methyl-phenyl)-4-oxo-3,4-dlhydro-quinazolin-2-ylmethyl]-amino}-nicotinonitrile;
- 2-{(3-(2-chloro-phenyl)-4-oxo-3,4-dihydro-quinazolin-2-ylmethyl]-amino}-nicotinonitrile;
- 2-[[3-(2-chloro-pyridin-3-yl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-ylmethyl]-amino]-benzonitrile;
- 3-[(3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-quinazolin-2-ylmethyl]-amino)-benzonitrile:
- 3-(2-chloro-phenyl)-2-[(3-diethylaminomethyl-phenylamino)-methyl]-6-fluoro-3H-quinazolin-4-one;
 - 3-(2-chloro-phenyl)-6-fluoro-2-(pyrimidin-2-ylaminomethyl)-3H-quinazolin-4-one;
 - 3-(2-chloro-pyridin-3-yl)-6-fluoro-2-(m-tolylamino-methyl)-3H-quinazolin-4-one;
- 3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[(6-methyl-pyridin-2-ylamino)-methyl]-3H-quinazolin-4-one;
- 3-(2-chloro-phenyl)-6-fluoro-2-(pyridin-2-ylaminomethyl)-3H-quinazolin-4-one;
- 3-(2-chloro-pyridin-3-yl)-6-fluoro-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-quinazolin-4-one;
- 6-fluoro-3-(2-methyl-pyridin-3-yl)-2-[(3-pyrrolidin-1-ylmethyl-phenylamino)-methyl]-3H-quinazolin-4-one; 3-(2-chloro-phenyl)-6-fluoro-2-[(2-fluoro-benzylamino)-methyl]-9H-quinazolin-4-one;
- N-(3f(3-(2-chloro-phenyl)-6-fluoro-4-oxo-3,4-dihydro-gulnazolin-2-ylmethyll-aminol-phenyl)-acetamide:
- 3-(2-chloro-phenyl)-6-fluoro-2-f(3-pyrrolidin-1-ylmethyl-phenylamino)-methyll-3H-quinazolin-4-one:
- 2-([3-(2-chloro-phenyl)-6-([uoro-4-oxo-3,4-dihydro-quinazolin-2-v|methyl]-amino)-nicotinonitrile:
- 3-(2-chloro-pyridin-3-yl)-6-fluoro-2-f(2-fluoro-phenylamino)-methyl)-3H-quinazolin-4-one:
- 3-(2-chloro-phenyl)-6-fluoro-2-f(2-fluoro-phenylamino)-methyl]-3H-quinazolin-4-one:
- 3-(2-chloro-phenyl)-6-fluoro-2-f(6-methyl-pyridin-2-ylamino)-methyll-3H-gulnazolin-4-one; and.

(E) an atropisomer of the formula

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wherein either V, X, Y and Z are all carbon or one of them is nitrogen and the others are carbon: each of R1, R2, R3, R4 and R5 is selected, independently, from hydrogen, halogen, (C1-C6)alkyl, trifluoromethyl, cyano, (C1-C8)alkoxy, (C1-C8)alkylthio and C(=O)-0-(C1-C8)alkyl, with the proviso that: (a) R1 can not be the same as R5, when each of V, X and Z is carbon; (b) at least one of R1 and R5 must be other than hydrogen; and (c) when V, X, Y or Z is nitrogen, then R5, R4, R3 or R2 respectively, is absent: ring A is a fused heteroaromatic ring, wherein said heteroaromatic ring is a 5 or 6 membered heteroaromatic ring, wherein said 6 membered heteroaromatic ring, taken together with the carbon atoms common to both rings of the bicyclic system, has the formula

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and wherein said 5 membered heteroaromatic ring, taken together with the carbon atoms common to both rings of the bicyclic system, has the formula

wherein said ring positions "A", "B", "D" and "E" may be independently selected from carbon or nitrogen:

- wherein sald ring positions "F, "G' and "J" may be independently selected from carbon, nitrogen, oxygen or sulfur, with the proviso that; (a) if more than two of "F", "G" or "J" is a heteroatom that said 5 membered heteroarcmatic ring is selected from the group consisting of (1,2,3)-triazdole, (1,2,5)-triazdole, (1,
- wherein said fused heteroarcmatic rings may optionally be independently substituted on any of the carbon or nitrogen atoms capable of forming an additional bond with a substitute slaceted from hydrogen, (C_1-C_6) allkyl, halogen, itrilluoromethyl, amino- $(CH_2)_n$, (C_1-C_6) allkyl, halogen, itrilluoromethyl, amino- $(CH_2)_n$, (C_1-C_6) allkyl, $(C_$

 R^6 is phenyl of the formula $\mathsf{Ph^1}$ or a five or six membered heterocycle, wherein said 6-membered heterocycle has the formula

wherein 'N' is nitrogen; wherein said ring positions 'K', 'L' and 'M' may be independently selected from carbon or nitrogen; with the provise that only one of 'K', 'L' or 'M' can be nitrogen; wherein said five membered heterocycle has the formula

wherein said ring positions "P.* "Q" and "T" may be independently selected from carbon, nitrogen, oxygen or sulfur, with the provisor that only one of "P.* "Q" or "T" can be oxygen or sulfur and at least one of "P." "Q" or "T" must be a heterostom;

wherein said Ph1 is a group of the formula

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wherein each R15 is, independently, hydrogen or (C1-C6) alkyl;

each of PR, R10 and R11 is selected, independently, from hydrogen, (C₂-C₀)allyly optionally substituted with one to three habgen atoms, fals, CF₀, (C₂-C₀)allyl-Hx(CH₂)₂, respectively. The control of the habgen atoms, R10 and R10 an

each is hydrogen, cyano, (C1-C6)211yl, halogen, trifluoromethyl, -CHO or (C1-C6)alkoxy;

n is an integer from zero to 3;

p is an integer from zero to 3; and

wherein the dashed bond represented an optional double bond;

with the proviso that when R11 is hydrogen, one of R13 and R14 is other than hydrogen.

 The use as claimed in claim 1 wherein said dopamine agonist therapy is therapy comprising the administration of L-dopa or L-dopa in combination with an inhibitor of peripheral dopadecarboxy/ase

- 3. The use as claimed in claim 2 wherein said inhibitor of peripheral dopadecarboxylase is carbidopa or benserazide.
- The use as claimed in any one of the preceding claims wherein said compound is a compound of group (A) or a pharmaceutically acceptable sait thereof.

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5**S**

- The use as claimed in any one of claims 1 to 4 wherein said compound is a compound of group (B) or a pharmaceutically acceptable sait thereof.
- The use as claimed in any one of the preceding claims wherein an AMPA receptor antagonizing effective amount of a compound within groups (A) to (F) is used.
 - The use as claimed in any one of the preceding claims wherein said compounds are used for the treatment of dyskinesias associated with dopamine agonist therapy in the treatment of Parkinson's disease.